

Division of Solid and Hazardous Waste
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SOLID WASTE FACILITY PERMIT

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* known as the Solid Waste Management Act, this permit is hereby issued to:

WYETH-AYERST RESEARCH

Facility Type:	Small-scale Thermal Destruction Facility
Lot No.:	4.03
Block No.:	79
Municipality:	South Brunswick
County:	Middlesex
Facility Registration No.:	1221001082

This permit is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection.

This permit shall not prejudice any claim the State may have to riparian land, nor does it allow the permittee to fill or alter or allow to be filled or altered in any way, lands that are deemed to be riparian, wetlands, stream encroachment areas or flood plains, or that are within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department of Environmental Protection.

September 27, 2001
Issuance Date

September 27, 2006
Expiration Date

Signed by Thomas Sherman, Assistant Director
Thomas Sherman, Assistant Director
Office of Permitting & Technical Programs

Table of Contents

<u>Item</u>	<u>Page(s)</u>
Scope of Permit	3
Regulated Activities at the Facility.....	3
Facility Description	3
Section I - General Conditions Applicable to All Permits	5
1. Duty to Comply.....	5
2. Duty to Reapply	5
3. Need to Mitigate.....	6
4. Permit Actions.....	6
5. Signatory Requirements	7
6. Transfers	7
7. Registration Statement.....	8
8. Operating Record and Reporting Requirements	8
9. Conformance to the District Solid Waste Management Plan	8
10. Compliance with Other State Regulations and Statutes	9
Section II - General Operating Requirements.....	10
1. General Operating Requirements for Solid Waste Facilities Disposing of On-site Generated Waste	10
2. General Operating Requirements for Small-scale Thermal Destruction Facilities	12
3. General Operating Requirements for Regulated Medical Waste Destination Facilities	17
Section III - Specific Conditions Applicable to the Facility	18
1. Permitted Waste Types	18
2. Approved Designs, Plans and Reports.....	18
3. Approved Operations.....	21
4. Residue Management.....	21
5. Operations Records	24

Scope of Permit

This Permit, along with the referenced application documents herein specified, shall constitute the sole Solid Waste Facility Permit for the operation of a small-scale thermal destruction facility by Wyeth-Ayerst Research, located in South Brunswick Township, Middlesex County, New Jersey. The Solid Waste Facility Permit is a permit renewal to the original Solid Waste Facility Permit issued to Wyeth-Ayerst Research on December 9, 1993. Any registration, approval or permit previously issued to Wyeth-Ayerst Research by the Division of Solid and Hazardous Waste or its predecessor agencies is hereby superseded.

This Permit does not convey any property rights of any sort, or any exclusive privilege. Failure to comply with all the conditions specified herein may result in revocation of this Permit and/or may result in such other regulatory or legal actions which the Department is authorized by law to institute.

Regulated Activities at the Facility

Section I of this Permit contains the general conditions applicable to all solid waste facilities. Section II of this Permit contains general operating requirements for all small-scale thermal destruction facilities that receive, store, process or transfer solid waste and regulated medical waste materials. Section III of this Permit contains specific conditions applicable to the operations of this facility.

Facility Description

The permitted facility is a privately owned thermal destruction unit operated by Wyeth-Ayerst Research. The facility is operated for the sole purpose of disposing of regulated medical waste materials generated by Wyeth-Ayerst research activities conducted on the site of the South Brunswick complex. The incinerator is housed within the Central Utilities Building, situated within the research complex. The Wyeth-Ayerst Research Complex is located at 865 Ridge Road in the Township of South Brunswick (Monmouth Junction) on Lot 4.03 of Block 79, in the County of Middlesex.

The facility is authorized to accept and process Regulated Medical Waste (RMW), Classes 1, 2, 3, 4, 5, 6 and 7. The facility is authorized to operate twenty-four hours daily, seven days per week. The facility is restricted to combusting a maximum of 300 pounds per hour of the waste type authorized for processing.

All RMW (which includes animal waste managed as RMW) brought to the incinerator originates from the research complex. Putrescible waste selected for incineration is stored in either of two freezers located within the facility's waste storage area. Other RMW arrives at the facility from its point of generation within the research complex in sealed packages. Once received at the incinerator building, the packaged RMW is staged for processing in a segregated area of the facility's waste storage area. When an incinerator run is scheduled to occur, the putrescible waste stored in the freezer is taken from the freezer on the day of incineration and is placed in boxes. The boxed waste is then transported to the incinerator loading dock and is staged for loading along with the non-refrigerated waste. All waste scheduled for combustion is charged into the

incinerator through the use of the system's a ram feed hopper assembly.

Waste is charged to a dual chambered, controlled air, gas fired "Burn-Zol Model 272" incinerator equipped with a PLC based control system. Primary combustion chamber temperatures are maintained at a minimum of 1500° Fahrenheit (F). Off gases generated by the combustion of the waste exit the primary chamber and undergo further combustion in the secondary chamber, which provides a minimum of one-second-residence exposure at temperatures in excess of 1800° F. Flue gases are subsequently passed through a Calvert Scrubber, comprised of a venturi section followed by a packed tower, that controls emissions of particulates and acid gases before the flue gas is discharged to the atmosphere via the system stack. Wastewater effluent from the air pollution control system scrubber (blowdown) is discharged to Stony Brook Regional Sewerage Authority wastewater collection and treatment system for appropriate handling.

The incinerator operates in a batch mode, and after combusting the last load of waste, the incinerator goes into a burnout cycle and is then allowed to cool down. Ash residue, predominantly that material that remains in the primary chamber after combustion is completed, is manually removed and placed into resilient, watertight plastic bags, which are then sealed and are subsequently placed into plastic lined 55-gallon metal drums. Upon filling, the metals drums are then sealed and stored within the incinerator building to await transport offsite for disposal. All ash unloading, bag and container filling and container loading is conducted within the incinerator building to mitigate against ash dusting. The ash is subject to analytical classification prior to its removal from the site. Ash residue disposal is conducted in accordance with the Middlesex County District Solid Waste Management Plan

Section I - General Conditions Applicable to All Permits

1. Duty to Comply

- (a) Pursuant to N.J.A.C. 7:26-2.8(i), the permittee shall operate the facility in compliance with the requirements of N.J.A.C. 7:26-2.11.
- (b) Pursuant to N.J.A.C. 7:26-2.8(j), the permittee shall operate the facility in conformance with all of the conditions, restrictions, requirements and any other provisions set forth in this permit.
- (c) Pursuant to N.J.A.C. 7:26-2.8(k), except for minor modifications as set forth at N.J.A.C. 7:26-2.6(d), the permittee shall not modify, revise or otherwise change any condition of this permit without prior written approval of the Department.

2. Duty to Reapply

- (a) Pursuant to N.J.A.C. 7:26-2.7(b)1, if the permittee wishes to continue the operation of this facility after the expiration date of this permit, the permittee shall apply for permit renewal at least 90 days prior to the expiration date of this permit, and the facility must be included in the District Solid Waste Management Plan at the time of such application.
- (b) Pursuant to N.J.A.C. 7:26-2.7(c), the conditions of this permit shall continue in force beyond the expiration date of this permit pursuant to the Administrative Procedure Act, N.J.S.A. 52:14B-11, until the effective date of a new permit if:
 - (1) The permittee has submitted a timely and complete application for a renewal permit pursuant to (a) above; and
 - (2) The Department, through no fault of the permittee, does not issue a new permit with an effective date on or before the expiration date of this permit, due to time or resource constraints.
- (c) Pursuant to N.J.A.C. 7:26-2.7(d), permits continued under said section remain fully effective and enforceable, and if the permittee is not in compliance with any one of the conditions of the expiring or expired permit the Department may choose to do any or all of the following:
 - (1) Initiate enforcement action based on the permit which has been continued;
 - (2) Issue a notice of intent to deny the new permit under N.J.A.C. 7:26-2.4. If the permit is denied, the permittee would then be required to cease activities and operations authorized by the continued permit or be subject to an enforcement action for operating without a permit;
 - (3) Issue a new permit under N.J.A.C. 7:26-2.4 with appropriate conditions; or

- (4) Take such other actions as are authorized by N.J.A.C. 7:26-1 *et seq.* or the Solid Waste Management Act, N.J.S.A. 13:1E-1 *et seq.*

3. Need to Mitigate

- (a) Pursuant to N.J.A.C. 7:26-2.8(p), should the Department determine that the facility is operating in an environmentally unsound manner, the permittee shall:
 - (1) Within 90 days of notification by the Department, submit a plan to close or environmentally upgrade the facility in conformance with the applicable standards, as determined by the Department and set forth in N.J.A.C. 7:26-1 *et seq.*;
 - (2) Within 90 days of receipt of written approval by the Department of the submitted plan, begin to close or construct the environmental upgrading at the facility; and
 - (3) Within one year of receipt of written approval by the Department of the submitted plan, complete closure or construction of the environmental upgrading at the facility.
- (b) Pursuant to N.J.A.C. 7:26-2.8(q), a one time extension of the compliance schedule established by N.J.A.C. 7:26-2.8(p) shall be granted by the Department provided the permittee demonstrates that it has made a good faith effort to meet the schedule.
- (c) Pursuant to N.J.A.C. 7:26-2.8(r), should the environmental upgrading required pursuant to N.J.A.C. 7:26-2.8(p) not be completed or should continued operations be determined by the Department to be environmentally unsound despite the implementation of the plan approved pursuant to N.J.A.C. 7:26-2.8(p), the facility shall temporarily or permanently cease operations and close or enter into receivership, as provided for in N.J.S.A. 13:1E-9, for that period of time necessary to rectify the environmentally unsound conditions.

4. Permit Actions

- (a) Pursuant to N.J.A.C. 7:26-2.6(a)1, if cause exists, the Department may modify, or revoke and reissue this permit, subject to the limitations of that section, and may require the permittee to submit an updated or new application in accordance with N.J.A.C. 7:26-2.6(e), if appropriate.
- (b) Pursuant to N.J.A.C. 7:26-2.6(b), the Department may modify or, alternatively, revoke and reissue this permit if cause exists for termination under N.J.A.C. 7:26-2.6(c) and the Department determines that modification or revocation and reissuance is appropriate.
- (c) Pursuant to N.J.A.C. 7:26-2.6(d), upon the request of the permittee, an interested party or for good cause, the Department may make certain minor modifications to a permit without issuing a tentative approval, providing public notice thereof or holding a public

hearing thereon.

- (d) Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit such facts or information.

5. Signatory Requirements

- (a) All completed registration statements submitted by the permittee shall be signed as specified at N.J.A.C. 7:26-2.4(e)1.
- (b) All engineering designs and reports, the environmental and health impact statement, other information requested as "Addendums" by the Department pursuant to N.J.A.C. 7:26-2.4(f) and (g)4 and documents required to be submitted pursuant to N.J.A.C. 7:26-2.9 and 2.10, submitted on behalf of the permittee, shall be signed by a person described in N.J.A.C. 7:26-2.4(e)1 or by a duly authorized representative of that person, as specified at N.J.A.C. 7:26-2.4(e)2.
- (c) Any person signing a registration statement, engineering design or report, environmental and health impact statement or addendum mentioned in N.J.A.C. 7:26-2.4(e)1 or (e)2, submitted on behalf of the permittee, shall make the certification specified at N.J.A.C. 7:26-2.4(e)3.

6. Transfers

- (a) Pursuant to N.J.A.C. 7:26-2.8(l), the permittee shall not transfer ownership of the permit without receiving prior written approval of the Department, in accordance with N.J.A.C. 7:26-2.7(e).
- (b) Pursuant to N.J.A.C. 7:26-2.7(e)1, a written request for permission to allow any transfer of ownership or operational control of the facility must be received by the Department at least 180 days in advance of the proposed transfer. The request for approval shall include the following:
 - (1) A registration statement, completed by the prospective new permittee on forms provided by the Department;
 - (2) A disclosure statement as required by N.J.A.C. 7:26-16.4 completed by the proposed transferee;
 - (3) A written agreement between the permittee and the proposed new permittee containing a specific future date for transfer of ownership or operations.
- (c) Pursuant to N.J.A.C. 7:26-2.7(e)2, a new owner or operator may commence operations at the facility only after the existing permit has been revoked and a permit is issued pursuant to N.J.A.C. 7:26-2.4.
- (d) Pursuant to N.J.A.C. 7:26-2.7(e)3, the permittee of record remains liable for ensuring

compliance with all conditions of the permit unless and until the existing permit is revoked and a new permit is issued in the name of the new owner or operator.

- (e) Pursuant to N.J.A.C. 7:26-2.7(e)4, compliance with the transfer requirements set forth in that subsection shall not relieve the permittee from the separate responsibility of providing notice of such transfer pursuant to the requirements of any other statutory or regulatory provision.

7. Registration Statement

- (a) Pursuant to N.J.A.C. 7:26-2.8(b), prior to May 1 of each calendar year the permittee shall submit to the Department a statement updating the information contained in the permittee's initial registration statement. This update shall be on forms furnished by the Department. In no case shall submission of an updated statement alter conditions of this permit.
- (b) Pursuant to N.J.A.C. 7:26-2.8(c), the permittee shall notify the Department in writing within 30 days of any change in the information set forth in the permittee's current registration statement.
- (c) Pursuant to N.J.A.C. 7:26-2.8(d), failure of the permittee to submit an updated registration statement and to submit all applicable fees, required by N.J.A.C. 7:26-4, on or before July 1 of each calendar year shall be sufficient cause for the Department to revoke this permit or take such other enforcement action as is appropriate.

8. Operating Record and Reporting Requirements

- (a) The permittee shall maintain a daily record of wastes received. The record shall include the information specified at N.J.A.C. 7:26-2.13(a).
- (b) The daily record shall be maintained, shall be kept, and shall be available for inspection in accordance with N.J.A.C. 7:26-2.13(b).
- (c) The permittee shall submit monthly summaries of wastes received to the Division of Solid and Hazardous Waste, Bureau of Recycling and Planning and the Solid Waste Coordinator for the Middlesex County District, on forms provided by the Department (or duplication of same), no later than 20 days after the last day of each month. The monthly summaries shall include the information specified at N.J.A.C. 7:26-2.13(e).
- (d) Pursuant to N.J.A.C. 7:26-6.4, upon request by the Department, the permittee shall submit, in such form as the Department may deem appropriate, information concerning the sources of wastes received and the transportation or disposal patterns associated with such wastes.

9. Conformance to the District Solid Waste Management Plan

Pursuant to N.J.A.C. 7:26-6.12(b), the permittee shall operate the facility in compliance with any applicable district solid waste management plan(s) as well as any amendments to and/or approved administrative actions concerning such plan(s). Should the permittee fail to comply with any applicable district solid waste management plan(s) as well as any amendment to or approved administrative actions concerning such plan(s), the permittee shall be deemed in violation of N.J.S.A. 13:1E-1 *et seq.* and N.J.A.C. 7:26-1 *et seq.* and shall be subject to applicable penalties provided thereunder, and any other applicable laws or regulations.

10. Compliance with Other State Regulations and Statutes

Pursuant to N.J.A.C. 7:26-2.8(h), the issuance of this permit shall not exempt the permittee from obtaining all other permits or approvals required by law or regulations.

End of Section I

Section II - General Operating Requirements

1. General Operating Requirements for Solid Waste Facilities Disposing of On-site Generated Waste

Pursuant to N.J.A.C. 7:26-2.11, the facility must be operated in compliance with the following general operating requirements:

- (a) Within each 24-hour period the operator shall clean each area where waste has been deposited or stored, except for those storage areas that are designed for multiple day storage.
- (b) No waste shall be stored overnight at the facility without effective treatment to prevent odors associated with putrefaction.
- (c) Facility property surrounding the actual disposal area shall be maintained free of litter, debris, and accumulations of unprocessed waste, process residues and effluents. Methods of effectively controlling wind-blown papers and other lightweight materials such as fencing shall be implemented at the facility.
- (d) Methods of effectively controlling dust shall be implemented at the facility in order to prevent offsite migration.
- (e) The operation of the facility shall not result in the emission of air contaminants in violation of N.J.A.C. 7:27-5.2(a).
- (f) The operator shall maintain all facility systems and related appurtenances in a manner that facilitates proper operation and minimizes system downtime. When requested, the operator of the facility shall furnish proof that provisions have been made for the repair and replacement of equipment which becomes inoperative.
- (g) An adequate water supply and adequate fire-fighting equipment shall be maintained at the facility or be readily available to extinguish any and all types of fires. Fire-fighting procedures as delineated in the approved O and M manual, including the telephone numbers of local fire, police, ambulance and hospital facilities, shall be posted in and around the facility at all times.
- (h) The operator shall effectively control insects, other arthropods and rodents at the facility by means of a program in compliance with the requirements of the New Jersey Pesticide Control Code, N.J.A.C. 7:30, and implemented by an applicator of pesticides, certified in accordance with the New Jersey Pesticide Control Code, N.J.A.C. 7:30.
- (i) The operator shall at all times comply with the conditions of this permit, as well as all other permits or certificates required and issued by the Department or any other governmental agency. The operator shall not receive, store, handle, process or dispose of waste types not specifically identified in Section III of this permit or other permit or certificate issued by the Department.

- (j) Departmental inspectors shall have the right to enter and inspect any building or other portion of the facility, at any time. This right to inspect includes, but is not limited to:
 - (1) Sampling any materials on site;
 - (2) Photographing any portion of the facility;
 - (3) Investigating an actual or suspected source of pollution of the environment;
 - (4) Ascertaining compliance or non-compliance with any statutes, rules, or regulations of the Department, including conditions of the SWF permit or other permit or certificate issued by the Department; or
 - (5) Reviewing and copying all applicable records, which shall be furnished upon request and made available at all reasonable times for inspection.
- (k) The quantity of waste received by the facility operator shall not exceed the system's designed handling, storage, processing or disposal capacity as identified in Section III of this permit or other permit certificate. The designed processing and disposal capacity approved within this permit, or any other permit certificate or approval conditions shall be inclusive of all solid waste received at the facility as well as all source separated recyclables received.
- (l) The facility shall be operated in a manner that employs the use of the equipment and those techniques for the receipt, storage, handling, processing or disposal of incoming waste and process residues that are specifically authorized by this permit.
- (m) The approved final O and M manual shall be maintained at the facility. A written description of any proposed changes to the approved, final O and M manual shall be submitted to the Department for review. These proposed changes shall not be implemented at the facility until the Department approves the changes.

2. General Operating Requirements for Small-scale Thermal Destruction Facilities

Pursuant to N.J.A.C. 7:26-2B.8, the facility must be operated in compliance with the following general operating requirements:

- (a) The owner or operator shall conduct inspections as indicated in the approved final O and M manual in order to identify and remedy any problems.
- (b) The owner and/or operator shall record the results of the inspections in a log book or by means of an electronic storage system approved by the Department which shall be accessible at the facility at all times for inspection by the Department. These records shall include the date and time of the inspection, the name of the inspector, a notation of observations and recommendations and the date and nature of any repairs or other remedial actions taken.
- (c) The owner or operator shall implement a program that effectively prevents the acceptance of unauthorized waste types. This program shall be incorporated into the approved final O and M manual.
- (d) Should situations arise where the facility experiences equipment or system malfunction to the extent that the waste received cannot be handled or processed in the normal manner, as specified in this permit, then the operator shall notify the Department of the existence of such a situation and the circumstances contributing to the situation within the working day of its occurrence. The operator shall immediately pursue corrective measures. The continued receipt of wastes at the facility shall be limited to that quantity and type that can be handled, stored and processed in conformance with the facility's remaining approved operational capacity.
- (e) Arrangements for facility generated waste disposal shall be established and maintained throughout the life of the facility. These waste disposal arrangements shall be in conformance with the Solid Waste Management Plan of the District in which the facility is located and with the rules of the Department.
- (f) Unprocessed incoming waste, facility process waste residues and effluents, and recovered materials shall be stored in bunkers, pits, bins, or similar containment vessels and shall be kept at all times at levels that prevent spillage or overflow.
- (g) Samples and measurements taken for the purpose of monitoring facility process and treatment operations shall be representative of the process or operation and shall be performed in accordance with the conditions of this permit, as well as the requirements of other regulatory agencies where applicable. Monitoring shall be conducted through the use of continuous monitoring instrumentation, where feasible.
- (h) Prior to disposal, the owner and/or operator shall perform a waste determination on all residual ash, in accordance with N.J.A.C. 7:26G-6. Such determination shall be based on analyses of representative composite samples collected in the manner

specified in Section III of this permit. At a minimum the sampling shall include analyses for toxicity characteristics and total TCDDs (all tetrachlorodibenzo-p-dioxins), and shall be performed at the frequency specified in Section III of this permit.

- (i) The Department may alter the list of ash test parameters, the methods of sample collection, the analytical procedures employed and the frequency of sampling and analysis, as it deems is necessary. The permittee may request the Department to reduce the number of ash test parameters specified within Section III of this permit by applying qualitative knowledge of incoming waste streams. If the owner and/or operator demonstrates through testing that the concentration of any given parameter is consistently below method detection levels as determined using the Toxicity Characteristic Leaching Procedure (TCLP), as defined in USEPA's Test Methods for Evaluating Solid Waste-Physical/Chemical Methods SW-846 (SW-846), or the concentration of any given parameter as determined using a total metals analysis, as defined in SW-846, is consistently below 20 times the regulatory threshold levels of the TCLP, the permittee may request the Department to eliminate those parameters from subsequent analysis.
- (j) The analyses required by (h) and (i) above shall be performed in accordance with procedures outlined in the most recent edition of "Test Methods for Evaluating Solid Waste-Physical/Chemical Methods," U.S.E.P.A. publication SW-846.
- (k) The results of ash analysis, including the statistical evaluation of the analytical data conducted in accordance with SW 846, and related quality assessment and quality control information pertaining to sample collection, handling and laboratory analytical methodology, shall be submitted to the Department for evaluation. The owner and/or operator shall dispose of the onsite generated residual ash at a facility authorized and permitted to receive the waste type I.D. number assigned to the residual ash by the Department in accordance with its classification.
- (l) The operator shall retain original records of all waste analyses and operations' monitoring reports at the facility for a period of three years from the date of measurement.
- (m) Records of operations' monitoring and waste analyses required above shall include:
 - (1) The date, time and place of sampling, measurement or analysis;
 - (2) Chain of custody for all samples collected;
 - (3) The name of the individual who performed the sampling, measurement or analysis;
 - (4) The sampling and analytical methods including the minimum detection levels for the analytical procedure utilized;
 - (5) The results of such sampling, measurement or analyses; and
 - (6) The signature and certification of the report by an appropriate authorized agent for the facility.
- (n) The owner and/or operator shall act to prevent accidental or unintentional entry and

minimize the possibility for unauthorized entry into the facility. The facility shall have a 24-hour surveillance system which continuously monitors and controls entry to the facility or an artificial or natural barrier which completely surrounds the facility. In addition, the facility shall have a means to control entry at all times through the gates or other entrances to the facility.

- (o) The owner and/or operator shall comply with the following requirements pertaining to facility staffing:
 - (1) Facilities shall maintain sufficient personnel during each scheduled shift to assure the proper and orderly operation of all system components, along with the ability to handle all routine facility maintenance requirements. Such personnel shall have sufficient educational background, employment experience and/or training to enable them to perform their duties in such a manner as to ensure the facility's compliance with the requirements of the Solid Waste Management Act at N.J.S.A. 13:1E, N.J.A.C. 7:26-1 *et seq.*, and the conditions of this permit;
 - (2) Each shift shall have a designated shift supervisor authorized by the owner or operator to direct and implement all operational decisions during that shift; and
 - (3) A facility utilizing a boiler to generate steam, power or heat shall employ individuals licensed in accordance with the Rules and Regulations of the New Jersey Department of Labor, "Boilers, Pressure Vessels and Refrigeration," N.J.A.C. 12:90.
- (p) The owner and/or operator shall comply with the following requirements pertaining to facility personnel training:
 - (1) All personnel who are directly involved in facility waste management activities or who operate, service, or monitor any facility equipment, machinery or systems shall successfully complete an initial program of classroom instruction and on-the-job training that includes instruction in the operation and maintenance of the equipment, machinery and systems which they must operate, service or monitor in the course of their daily job duties, and which teaches them to perform their duties in a manner that ensures the facility's compliance with the requirements of the Solid Waste Management Act at N.J.S.A. 13:1E, N.J.A.C. 7:26-1 *et seq.* and the conditions of this permit;
 - (2) The training program shall be directed by a person thoroughly familiar with the technology being utilized at the facility and the conditions of the facility's permits;
 - (3) The training program shall ensure that facility personnel are able to effectively respond to any equipment malfunction or emergency situation that may arise. The training program shall provide instruction in the use of

personal safety equipment, procedures for inspecting and repairing facility equipment, the use of communications or alarm systems, the procedures to be followed in response to fires, explosions or other emergencies, and the procedures to be followed during planned or unplanned shutdown of operations;

- (4) Employees hired shall not work in unsupervised positions until they have completed the training program required herein;
 - (5) Facility personnel shall take part in a planned annual review of the initial training program; and
 - (6) Training records that document the type and amount of training received by current facility personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least one year from the date the employee last worked at the facility.
- (q) The following actions shall be implemented in the case of an emergency:
- (1) The plant operator or emergency coordinator shall immediately identify the character, exact source, amount and extent of any discharged materials and notify appropriate State or local agencies with designated response roles if their help is needed;
 - (2) Concurrently, the plant operator or emergency coordinator shall assess possible hazards to public health or the environment that may result from the discharge, fire or explosion. This assessment shall consider both direct and indirect effects;
 - (3) If the plant operator or emergency coordinator determines that the facility has had an uncontrolled discharge, a discharge above standard levels permitted by the Department, or a fire or explosion, he or she shall:
 - (i) Immediately notify appropriate local authorities if an assessment indicates that evacuation of local areas may be advisable;
 - (ii) Immediately notify the Department at 1-877-WARNDEP; and
 - (iii) When notifying the Department, report the type of substance and the estimated quantity discharged, if known, the location of the discharge, the action the person reporting the discharge is currently taking or proposing to take in order to mitigate the discharge and any other information concerning the incident which the Department may request at the time of notification.
 - (4) The plant operator shall take all reasonable measures to ensure that fires, explosions and discharges do not recur or spread to other areas of the facility. These measures shall include, where applicable, the cessation of process operations and the collection and containment of released waste;

- (5) Immediately after an emergency, the plant operator or emergency coordinator shall provide for treating, storing or disposing of waste contaminated soil or water or any other material contaminated as a result of the discharge, fire or explosion;
- (6) The plant operator or emergency coordinator shall insure that no waste is processed until cleanup procedures are completed and all emergency equipment listed in the contingency plan is again fit for its intended use;
- (7) The plant operator or emergency coordinator shall notify the Department and appropriate local authorities when operations in the affected areas of the facility have returned to normal; and
- (8) Within 15 days after the incident, the plant operator or emergency coordinator shall submit a written report on the incident to the Department. The report shall include, but not be limited to:
 - (i) The name, address and telephone number of the facility;
 - (ii) The date, time and description of the incident;
 - (iii) The extent of injuries, if applicable, with names and responsibilities indicated;
 - (iv) An assessment of actual damage to the environment, if applicable;
 - (v) An assessment of the scope and magnitude of the incident;
 - (vi) A description of the immediate actions that have been initiated to clean up the affected area and prevent a recurrence of a similar incident; and
 - (vii) An implementation schedule for undertaking measures to effect cleanup and avoid recurrence of the incident, if applicable.

3. General Operating Requirements for Regulated Medical Waste Destination Facilities

- (a) Pursuant to N.J.A.C. 7:26-3A.1(c), the permittee shall comply with N.J.A.C. 7:26-3A.1 *et seq.*
- (b) Pursuant to N.J.A.C. 7:26-3A.4(a), the length of time that the permittee shall keep records required under N.J.A.C. 7:26-3A is automatically extended in the case where EPA, the Department or another State agency initiates an enforcement action, for which those records are relevant, until the conclusion of the enforcement action.
- (c) Pursuant to N.J.A.C. 7:26-3A.4(b), all records, reports, logs and tracking forms required to be made and/or kept in accordance with N.J.A.C. 7:26-3A, shall be made available for inspection by the Department.
- (d) Pursuant to N.J.A.C. 7:26-3A.9, the supervisory personnel of the small scale thermal destruction facility that is the subject of this permit shall attend education and training sessions provided by the Department, and shall also be required to disseminate the information obtained at the sessions to all employees.
- (e) Storage of regulated medical waste shall be in conformance with N.J.A.C. 7:26-3A.12.
- (f) Pursuant to N.J.A.C. 7:26-3A.16(a) the permittee shall determine if waste is a regulated medical waste.
- (g) The permittee shall comply with the record keeping requirements at N.J.A.C. 7:26-3A.25.
- (h) The permittee shall comply with the reporting requirements at N.J.A.C. 7:26-3A.26.

End of Section II

Section III - Specific Conditions Applicable to the Facility

1. Permitted Waste Types

The permittee is authorized to accept the following waste types and the following regulated medical waste classes originating from the Wyeth-Ayerst research center, located in the municipality of South Brunswick:

<u>ID</u>	<u>Description</u>
Regulated Medical Waste	Classes 1,2,3,4,5,6 and 7

The permittee is not authorized to accept any other type or description of solid waste as defined at N.J.A.C. 7:26-2.13(g) and (h), regulated medical waste as defined at N.J.A.C. 7:26-3A.6(a), or hazardous waste as defined at N.J.A.C. 7:26G-1 *et seq.*

2. Approved Designs, Plans and Reports

- (a) The permittee shall operate the facility, and construct or install associated appurtenances thereto, in accordance with the provisions of N.J.A.C. 7:26-1 *et seq.*, the conditions of this permit, and the following permit application documents which are incorporated herein by reference:
 - (1) “Application for Solid Waste Permit for a Pathological Waste Incinerator for Wyeth-Ayerst Research, Monmouth Junction, New Jersey”, prepared by BCM Engineers, Planners, Scientists, and Laboratory Services, Plymouth Meeting, PA, dated January 1991. The following drawings and documents are included with this submission:
 - “Standard Application Form CP#1” and the “Solid Waste Supplement to Standard Application Form CP#1”;
 - “Vicinity Plan – Wyeth Ayerst Research (Princeton), Drawing No. 90-025-2”, dated September 11, 1990, signed and sealed by Daniel T. Guest, N.J.P.E;
 - “Engineering Report for Pathological Waste Incinerator”, dated January, 1991;
 - “Preliminary Operations and Maintenance Manual for the Pathological Waste Incinerator”, dated November 1990; and
 - “Environmental and Health Impact Statement for the Pathological Waste Incinerator”, dated January, 1991.

- (2) The following drawings presented for informational purposes in the permit application document referenced in (1) immediately above:
 - “Central Utility Floor Plans and Roof Plans, Drawing No. A-33”, dated July 27, 1982 (latest revision dated April 7, 1983), prepared by CUH2A, Princeton, New Jersey;
 - “Plans & Elevations, Drawing No. 90-025-4”, dated September 12, 1990;
 - “Incinerator Room Plan, Drawing No. 90-025-4”, dated September 14, 1990; and
 - “Model-272 Destructor Fabrication Drawing, Drawing No. 3026A”, dated April 16, 1989, prepared by CUH2A, Princeton, New Jersey.
- (3) Letter dated March 1, 1991, signed by William J. Kesack, Jr., Senior Engineer IV, BCM Engineers, including the following documents:
 - Pages 4 and 5 of the “Standard Application Form CP#1”; and
 - “Signed Affidavit of Exemption from Wyeth-Ayerst Research” verifying that the incinerator was operating prior to March 6, 1989.
- (4) “Addendum No. 1 to the Application for Solid Waste Permit for a Pathological Waste Incinerator”, dated July, 1992, prepared by Harry Yekel, Project Engineer, Wyeth-Ayerst Laboratories and submitted by cover letter, dated July 22, 1992. The following drawing and documents are included with this submission:
 - “APC Equipment Arrangement, Drawing No. WAP/EL01”, dated June 16, 1992, prepared by ERS Services, Doylestown, PA, signed and sealed by Thomas Puller, N.J.P.E.;
 - “Specification Sheet” for the Calvert Collision Scrubbing System, Model No. CB1380A (Attachment 3);
 - “Incinerator Modification Scope of Work (Attachment 2)”; and
 - Item III of the Standard Application Form CP#1 has been amended to include Regulated Medical Waste, Classes 1 through 7.
- (5) Documents submitted with cover letter dated September 9, 1992, prepared by Mr. Harry Yekel, Project Engineer, Wyeth-Ayerst Laboratories. These documents include:
 - July 31, 1992 letter to Subhash Shah, Air Quality Regulation Program, prepared by Mr. Harry Yekel, Project Engineer, Wyeth-Ayerst

Laboratories;

- “New Jersey Radioactive Materials License”, Licensee – Wyeth-Ayerst Laboratories;
 - “U.S. Nuclear Regulatory Commission Materials License”, Licensee – Wyeth-Ayerst Laboratories; and
 - “Sewer Extension Application” for the facility’s wastewater discharge to the Stony Brook Regional Sewer Authority.
- (6) “Drawing No. 90-025-2, Vicinity Plan” submitted with cover letter dated November 25, 1992 prepared by Mr. Harry Yekel, Project Engineer, Wyeth-Ayerst Laboratories.
- (7) Documents submitted with cover letter dated February 14, 1994, prepared by Mr. Harry Yekel, Project Engineer, Wyeth-Ayerst Laboratories. These documents include:
- Design engineering drawings depicting incinerator modifications as required by Condition No. 9 of the Solid Waste Facility Permit; and
 - Written documentation from the Stony Brook Regional Sewerage Authority confirming the Authority’s willingness and ability to accept the incinerator facility’s wastewater discharge as required by Condition No. 16 of the Solid Waste Facility Permit.
- (8) “Operations and Maintenance Manual – Incinerator/Scrubber System for Wyeth-Ayerst Research, Monmouth Junction, N.J.”, dated March 1994 with revisions August 1994, prepared by ERS Services, Inc. and conveyed by cover letter dated April 19, 1994, prepared by Mr. Harry Yekel, Project Engineer, Wyeth-Ayerst Laboratories.
- (9) Letter dated October 19, 1994 signed by Mr. Harry Yekel, Project Engineer, Wyeth-Ayerst Laboratories conveying addendum to the “Ash Handling and Storage Plan.”
- (10) “Certification of Construction – Wyeth-Ayerst Research Pathological Waste Incinerator”, dated October 11, 1995, prepared by Mr. Murray E. Glover, N.J.P.E., Energy Alternatives, Lambertville, N.J.
- (11) “Solid Waste Facility Permit Renewal Wyeth-Ayerst Research, South Brunswick, Facility No. 1221001082” application, dated August 27, 1998, prepared by Mr. Nicholas Sideridis, Associate Director, Wyeth-Ayerst Research.
- (12) Addendum to the “Solid Waste Facility Permit Renewal” application, dated April 12, 2000, prepared by Mr. Nicholas Sideridis, Associate Director, Wyeth-

Ayerst Research.

In case of conflict, the provisions N.J.A.C. 7:26-1 *et seq.* shall have precedence over the conditions of this permit, the conditions of this permit shall have precedence over the SWF permit application documents listed above, and the most recent revisions and supplemental information approved by the Department shall prevail over prior submittals and designs.

- (b) One complete set of the permit application documents listed in Condition 2(a) above, this Solid Waste Facility Permit, and all records, reports and plans as may be required pursuant to this permit shall be kept on site and shall be available for inspection by authorized representatives of the Department upon presentation of credentials.

3. Approved Operations

(a) Waste Processing Rates

The facility shall process waste at a rate that does not exceed 300 pounds per hour.

(b) Hours of Operation

The delivery and/or processing of waste at the facility shall be limited to the following schedule:

Monday through Sunday, 24-Hours Daily

(c) Housekeeping

Routine housekeeping and maintenance procedures shall be implemented within the facility interior to prevent the excess accumulation of dust and debris, and to maintain general cleanliness in the working environment. Unprocessed waste feedstock and facility process waste residues shall be stored in containers as specified in the referenced engineering plans listed at Condition 2 of this section. All facility floor drains, traps, sumps or similar catchment basins shall be maintained free of obstructions to facilitate effluent drainage.

4. Residue Management

(a) Process Residue Handling and Storage

Bottom ash residue removed from the incinerator shall be placed into a resilient, watertight plastic bag, which shall be sealed and subsequently placed into a lined 55-gallon metal container. Upon filling, the metal container shall be sealed and stored within the Central Utilities Building to await transport for disposal. Exterior storage of the bagged ash or the filled 55-gallon metal containers is prohibited. Ash residue shall be thoroughly extinguished to eliminate any fire hazard, and shall be handled in such a

manner as to prevent fugitive dust and spillage. Ash residue bags or containers shall not be filled to levels that permit overflow or spillage during handling, while in storage or during transport for disposal. Ash residue containers shall be secured during transport to prevent spillage or scattering by wind.

(b) Residual Ash Monitoring Program

A residual ash monitoring program shall be maintained by the permittee for the purpose of assessing the chemical characteristics of the ash residue generated by facility operations. Material sampling methods, sample preservation requirements, sample handling times and decontamination procedures for field equipment shall conform to applicable industry methods as specified in the NJDEP "Field Sampling Procedures Manual." Other methods may be used on written approval from the Division of Solid and Hazardous Waste. As a minimum, this monitoring program shall consist of the following:

- (1) Analyses shall be conducted in accordance with the following schedule:

<u>TIME PERIOD</u>	<u>ANALYSIS:</u>	
	<u>Toxic Characteristic Leaching Procedure</u> (Frequency/ Test Parameter)	<u>Total TCDD's</u> (17 2,3,7,8-substituted PCDD and PCDF Congeners)
Confirmatory	Quarterly/ Eight Metals	Any stack-testing event conducted for dioxins
Re-Characterization	As Required / Parameter Specific	N/A

- (2) For purpose of analysis, the residual ash generated by the facility shall be sampled in accordance with the following procedures:

(i) **TOXIC CHARACTERISTIC LEACHING PROCEDURE SAMPLING:**

Grab samples of residual ash shall be collected from beneath the incinerator hearth at the end of each operating cycle, in such a manner that ensures each sample so taken is representative of the waste burned during that cycle. The permittee shall ensure that the grab sample collected at the completion of the operating cycle is of sufficient size to allow for compositing into a representative weekly sample. The weekly composite samples shall be further composited to obtain a quarterly composite sample. A minimum of four (4) samples shall be taken from the quarterly composite for analyses. Each of the four (4) samples shall be subject individually to analysis as prescribed for the Toxic Characteristic Leaching Procedure as is referenced at (1) immediately

above.

(ii) **STACK-TESTING EVENT – DIOXIN ANALYSIS SAMPLING:**

During any stack-testing event measuring dioxin emissions to the atmosphere, at least one sample of bottom ash residue shall be collected from beneath the incinerator hearth at the end of each operating cycle, in such a manner that ensures each sample taken is representative of the waste burned during that cycle. Where multiple operating cycles are conducted during the term of the stack test, the samples collected from each operating cycle shall be composited to form a sample representative of the ash residue generated during the stack-testing event. This composite sample shall be subject to analysis as prescribed for Total TCDD's as is referenced at (1) immediately above.

- (3) A new ash residue characterization shall be initiated if:
- (i) there is a significant change in facility processes and/or operations;
 - (ii) there is a significant change in the type of waste(s) received for disposal at the facility; or
 - (iii) the results of the confirmatory analyses demonstrate that one or more of the parameters exceed the Toxic Characteristic Leaching Procedure regulatory limits.
- (4) Re-characterization analysis will be parameter-specific in the instance where the analysis indicates concentrations in the sample extract are above the defined regulatory threshold for that parameter, resulting in the waste residue requiring reclassification as a hazardous waste. Otherwise, analysis will include the full spectrum of listed TCLP parameters. Ash residue subject to re-characterization shall be sampled in accordance with procedures outlined in (2) immediately above, or shall be in accord with a revised sampling protocol set forth by the permittee and approved by the Department. During a residue re-characterization period, all ash residue generated shall be stored on-site until the analytical results are received, and a determination is rendered on the hazardous or non-hazardous nature of the material. At the completion of the re-characterization test period, the confirmatory ash residue sampling and analysis regimen outlined above, shall not be re-instituted without express written approval from the Division of Solid and Hazardous Waste.
- (5) All analyses called for as a condition of this permit shall be performed by a laboratory approved, and/or certified by the Department for those specific analyses. The permittee shall submit each set of analytical results, with the appropriate statistical analysis, to the Division of Solid and Hazardous Waste upon the receipt of said results.

(c) Ash Residue Removal

All containers used to remove ash residue shall be sealed to prevent leakage and shall not be filled to levels that permit overflow or spillage during transport. The ash residue removal vehicles (truck bodies and/or containers) shall be covered to prevent spillage or scattering by wind during transport. Ash residue removal vehicles shall leave the facility promptly after being loaded. Exterior storage of ash residue in loaded trucks is prohibited. Container loading shall be conducted solely within the confines of the "Central Utilities Building" in a controlled manner that minimizes dusting and prevents the tracking of ash to the exterior of the building. Truck tires of container transport vehicles shall be inspected and, if necessary to prevent the tracking of ash onto local roads, shall be washed and/or brushed clean before the truck leaves the facility site.

5. Operations Records

In addition to the operating record and reporting requirements of Condition 8 of Section I of this permit and of Condition 3 of Section II of this permit, the permittee shall maintain the following records of facility operations on a daily basis:

- (a) The quantity (by weight) of waste charged to the incinerator for each hour of operation;
- (b) The daily total weight of waste incinerated for each day of facility operation; and
- (c) The quantity (by weight) of bottom ash transported off site for disposal on any given day. Include the date of transport, the name, address and NJDEP registration number of the transporter, and the name and address of the disposal facility that receives the ash.

End of Section III